

What Is Claimed Is:

1. A head positioning control method for a storage disk device which comprises;

5 a storage disk that stores a position signal;

a plurality of heads that read information from the said storage disk;

an actuator that moves the said head; and

10 a control circuit that positions the said head based on the position signal read from the said storage disk using a selected head, said method comprising:

15 a step of synchronizing a time of a detection signal for detecting said position signal with a time of said position signal read by head to which switching is directed, in response to a head switching cue;; and

a step of reading said position signal for said head in response to said synchronized detection signal and positioning the said head according to said read position signal.

20 2. The head positioning control method for a storage disk device of Claim 1, wherein said synchronizing step comprises:

25 a step of determining a time at which the head to which said switching is directed reads said position signal, in response to said head switching cue; and

a step of synchronizing the time of said

~~3.~~ detection signal with said determined time.

5 ~~3. The head positioning control method for a~~  
storage disk device of Claim 2, wherein said time  
determining step comprises a step for determining said  
time of a value greater than one sample period for said  
positioning control.

10 4. The head positioning control method for a  
storage disk device of Claim 2 wherein said time  
determining step includes a step for reading the time read  
by the head to which said switching is directed from a  
memory for storing the time at which the position signal  
for each head is read.

15 ~~5. The head positioning control method for a~~  
storage disk device of Claim 2, wherein said time  
determining step comprises a step for determining the time  
difference between the detection time of said position  
signal for the head from which said switching originates  
and the detection time of said position signal for the  
head to which said switching is directed,

20 and wherein said synchronizing step comprises a step  
for time-shifting the said detection signal for said time  
25 difference.

6. The head positioning control method for a

~~storage disk device of Claim 5, wherein said time~~  
determining step comprises:

5 a step of determining the detection time of said  
position signal for the head from which said switching  
originates;

a step of determining the detection time of said  
position signal for the head to which said switching is  
directed; and

10 a step of determining the time difference between the  
two detection times.

7. The head positioning control method for a  
storage disk device of Claim 1, wherein said positioning  
step comprises:

15 a step of calculating, in response to said head  
switching cue, the time difference between the detection  
time for the head from which the said switching originates  
and the detection time for the head to which said  
switching is directed;

20 a step of determining whether or not the said time  
difference is shorter than one sample interval; and

a step of inhibiting positioning in response to said  
detection signal when said time difference is shorter than  
one sample interval.

25

8. A head positioning control device for a storage  
disk apparatus, comprising;

SY  
Ad  
Cont

a storage disk that stores position signals;  
a plurality of heads for reading information from said storage disk;  
an actuator for moving said heads; and  
a control circuit for positioning said heads based on the position signal read from the said storage disk by a selected head,

wherein said control circuit comprises:

10 a synchronization circuit that, in response to a head switching cue, synchronizes the time of the detection signal for detecting said position signal with the time of the position signal read by the head from which switching originates, and

15 a processing circuit that, in response to said synchronized detection signal, reads the said position from the said head and, in response to the read position signal, positions the said head.

20 9. The head positioning control device for a storage disk apparatus of Claim 8, wherein said synchronization circuit comprises:

25 a circuit for determining the time at which the head from which said switching is directed reads said position signal in response to said head switching cue, and synchronizing time of said detection signal with said determined time.

10. ~~The head positioning control device for a storage disk apparatus of Claim 9, wherein said synchronization circuit comprises a circuit that determines said time the value of which is greater than one sample period for said positioning control.~~

11. The head positioning control device for a storage disk apparatus of Claim 9, wherein said synchronization circuit comprises memory for storing the times at which the position signals of each head are read.

12. ~~The head positioning control device for a storage disk apparatus of Claim 9, wherein said synchronization circuit comprises:~~

a circuit that determines the time difference between the detection time of said position signal for the head used prior to switching and the detection time of said position signal for the head to which said switching is directed; and

a circuit that shifts in time said detection signal by that time difference.

13. The head positioning control device for a storage disk apparatus of Claim 11, wherein said synchronization circuit comprises a circuit for determining from said memory the detection time of said position signal for the head used prior to said switching

~~and the detection time of the said position signal for the~~  
head to which said switching is directed, and calculating  
the time difference between the two detection times.

5

14. The head positioning control device for a  
storage disk apparatus of Claim 8, wherein said processing  
circuit comprises a circuit that determines whether or not  
the time difference between the detection time for head  
used prior to said switching and the detection time for  
the head to which said switching is directed is less than  
one sample interval and that, when said time difference is  
shorter than one sample interval, inhibits positioning in  
response to said detection signal.